Stanford Stauffer Hall - Retrofit

October 23, 2010

General Information

Project Name	Stanford Stauffer Hall
Project Description	Retrofit
Company Name	
Contact	
Address 1	
Address 2	
City/State	
Zip Code	
Telephone Number	

System Summary

Number of Rooms	38	
Number of Exhaust Fans	1	
Number of Supply AHU's	1	
Number of Central Plants	1	
Number of Corridors	3	
Number of Fume Hoods	42	
Total Volume	186,212	*Cubic Feet*

System Flows

Fume Hood demand (with all sashes open)	29,960	*CFM*
Fume Hood demand (with all sashes closed)	16,755	*CFM*
Thermal Demand (maximum cooling)	26,055	*CFM*
Ventilation Demand (occupied)	17,542	*CFM*
Ventilation Demand (unoccupied)	17,541	*CFM*

LabPro Diversity Comparison

Flow Unit: *CFM*

	Exhaust System *99.00% Design*			Supply System *99.00% Design*			Central Plant *99.00% Design*		
	Diversity	Design Flow	Average Flow	Diversity	Design Flow	Average Flow	Diversity	Design Flow	Average Flow
CV	100%	42,435	42,435	100%	41,345	41,345	100%	41,345	41,345
CV-UBC	85%	36,010	32,028	84%	34,920	30,938	84%	34,920	30,938
VAV	95%	40,200	37,286	95%	39,110	36,196	95%	39,110	36,196
VAV-UBC	83%	35,323	30,994	83%	34,233	29,904	83%	34,233	29,904

Diversity Calculation: Control Type Design Flow / Constant Volume Design Flow

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LabPro Flow Summary	Unit	CV	CV-PHX	VAV	VAV-PHX	CV-UBC	VAV-UBC
Design Exhaust System Flow	*CFM*	42,435	42,435	40,200	40,200	36,010	35,323
Average Exhaust System Flow	*CFM*	42,435	42,435	37,286	37,286	32,028	30,994
LabPro HVAC Initial Cost Comparison							
Cooling Tons Required	*Tons*	193	193	183	183	163	160
Cooling System Cost	*USD*	0	0	0	0	0	0
Heating System Cost	*USD*	0	0	0	0	0	0
Reheat System Cost	*USD*	0	0	0	0	0	0
Supply AHU Cost	*USD*	0	0	0	0	0	0
Exhaust Fan Cost	*USD*	0	0	0	0	0	0
VFD Cost	*USD*	0	0	0	0	0	0
Duct Cost	*USD*	0	0	0	0	0	0
Filter Cost	*USD*	0	0	0	0	0	0
Balancing Cost	*USD*	9,500	3,800	9,500	3,800	3,800	3,800
ATC Cost	*USD*	0	0	0	0	0	0
ATC Interface Cost	*USD*	0	0	0	0	0	0
Lab Controls Cost	*USD*	0	0	1,050,000	1,050,000	900,000	1,100,000
Hood Certification Cost	*USD*	2,100	1,050	2,100	1,050	1,050	1,050
Total HVAC Initial Cost	*USD*	**11,600**	**4,850**	**1,061,600**	**1,054,850**	**904,850**	**1,104,850**
HVAC Initial Cost per Avg Flow	*USD/CFM*	0.27	0.11	28.47	28.29	28.25	35.65
HVAC Initial Cost per Fume Hood	*USD*	276.19	115.48	25,276.19	25,115.48	21,544.05	26,305.95
HVAC Initial Cost per Unit Area	*USD/Sq. Ft*	0.68	0.28	62.21	61.82	53.03	64.75
LabPro Energy Cost Comparison (annual)							
Annual Cooling Energy Cost	*USD*	20,045	20,045	17,893	17,893	15,482	15,010
Annual Heating Energy Cost	*USD*	9,381	9,381	8,069	8,069	6,818	6,571
Annual Reheat Energy Cost	*USD*	43,190	43,190	34,060	34,060	24,738	22,905
Annual Supply AHU Energy Cost	*USD*	34,279	34,279	24,170	24,170	18,584	17,360
Annual Exhaust Fan Energy Cost	*USD*	34,128	34,128	29,986	29,986	25,758	24,926
Total Annual Energy Cost	*USD*	**141,023**	**141,023**	**114,179**	**114,179**	**91,380**	**86,771**
Annual Energy Cost per Average Flow	*USD/CFM*	3.32	3.32	3.06	3.06	2.85	2.80
Annual Energy Cost per Fume Hood	*USD*	3,357.69	3,357.69	2,718.54	2,718.54	2,175.72	2,065.98
Annual Energy Cost per Unit Area	*USD/Sq. Ft*	8.26	8.26	6.69	6.69	5.36	5.09
LabPro Operation and Maintenance Cost Comparison (annual)							
Annual Energy Cost	*USD*	141,023	141,023	114,179	114,179	91,380	86,771
Annual Balancing Cost	*USD*	9,500	3,800	9,500	3,800	3,800	3,800
Annual Hood Certification Cost	*USD*	2,100	1,050	2,100	1,050	1,050	1,050
Annual Lab Controls Maintenance Cost	*USD*	12,600	0	31,500	0	0	0
Annual ATC Maintenance Cost	*USD*	19,000	19,000	19,000	19,000	19,000	19,000
Annual Filter Cost	*USD*	0	0	0	0	0	0
Annual Downtime Cost	*USD*	2,520	0	6,300	0	0	0
Total Annual O& M Costs	*USD*	**186,743**	**164,873**	**182,579**	**138,029**	**115,230**	**110,621**
Annual O&M Cost per Average Flow	*USD/CFM*	4.40	3.89	4.90	3.70	3.60	3.57
Annual O&M Cost per Fume Hood	*USD*	4,446.26	3,925.55	4,347.11	3,286.40	2,743.58	2,633.84
Annual O&M Cost per Unit Area	*USD/Sq. Ft*	10.94	9.66	10.70	8.09	6.75	6.48

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Room Name 005

ACH Flow (Occupied)	350 *CFM*
ACH Flow (Unoccupied)	350 *CFM*
Maximum Cooling Flow	330 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	350	0	0	0		0	0	350	350
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	350	0	0	0		0	0	350	350
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	350	0	0	0		0	0	350	350
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	350	0	0	0		0	0	350	350
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 006

ACH Flow (Occupied)	35 *CFM*
ACH Flow (Unoccupied)	35 *CFM*
Maximum Cooling Flow	200 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	200	0	0	0		0	0	200	200
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 007

ACH Flow (Occupied)	840 *CFM*
ACH Flow (Unoccupied)	840 *CFM*
Maximum Cooling Flow	590 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	590	250	0	0		0	75	765	840
Demand	0	250	0	0		0	75	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	590	250	0	0		0	75	765	840
Demand	0	250	0	0		0	75	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	590	250	0	0		0	75	765	840
Demand	0	250	0	0		0	75	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	590	250	0	0		0	75	765	840
Demand	0	250	0	0		0	75	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 008

ACH Flow (Occupied)	550 *CFM*
ACH Flow (Unoccupied)	550 *CFM*
Maximum Cooling Flow	570 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	1,910	125	0	0		2,000	0	35	2,035
Demand	0	125	0	0		2,000	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	560	125	0	0		650	0	35	685
Demand	0	125	0	0		650	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	560	125	0	0		650	0	35	685
Demand	0	125	0	0		650	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	570	125	0	0		650	0	45	695
Demand	0	125	0	0		650	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 009

ACH Flow (Occupied)	880 *CFM*
ACH Flow (Unoccupied)	880 *CFM*
Maximum Cooling Flow	755 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	755	125	0	0		0	75	805	880
Demand	0	125	0	0		0	75	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	755	125	0	0		0	75	805	880
Demand	0	125	0	0		0	75	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	755	125	0	0		0	75	805	880
Demand	0	125	0	0		0	75	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	755	125	0	0		0	75	805	880
Demand	0	125	0	0		0	75	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 011

ACH Flow (Occupied)	90 *CFM*
ACH Flow (Unoccupied)	90 *CFM*
Maximum Cooling Flow	600 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	90	0	0	0		0	0	90	90
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	90	0	0	0		0	0	90	90
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	90	0	0	0		0	0	90	90
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	600	0	0	0		0	0	600	600
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 012

ACH Flow (Occupied)	60 *CFM*
ACH Flow (Unoccupied)	60 *CFM*
Maximum Cooling Flow	500 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	60	0	0	0		0	0	60	60
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	60	0	0	0		0	0	60	60
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	60	0	0	0		0	0	60	60
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	500	0	0	0		0	0	500	500
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 013

ACH Flow (Occupied)	40 *CFM*
ACH Flow (Unoccupied)	40 *CFM*
Maximum Cooling Flow	300 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	40	0	0	0		0	0	40	40
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	40	0	0	0		0	0	40	40
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	40	0	0	0		0	0	40	40
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	300	0	0	0		0	0	300	300
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 014

ACH Flow (Occupied)	35 *CFM*
ACH Flow (Unoccupied)	35 *CFM*
Maximum Cooling Flow	150 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	150	0	0	0		0	0	150	150
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

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Room Name 015

ACH Flow (Occupied)	35 *CFM*
ACH Flow (Unoccupied)	35 *CFM*
Maximum Cooling Flow	150 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	150	0	0	0		0	0	150	150
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 016

ACH Flow (Occupied)	40 *CFM*
ACH Flow (Unoccupied)	40 *CFM*
Maximum Cooling Flow	300 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	40	0	0	0		0	0	40	40
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	40	0	0	0		0	0	40	40
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	40	0	0	0		0	0	40	40
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	300	0	0	0		0	0	300	300
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 017

ACH Flow (Occupied)	100 *CFM*
ACH Flow (Unoccupied)	100 *CFM*
Maximum Cooling Flow	0 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	150	0	0	0		0	150	0	150
Demand	0	0	0	0		0	150	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	150	0	0	0		0	150	0	150
Demand	0	0	0	0		0	150	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	150	0	0	0		0	150	0	150
Demand	0	0	0	0		0	150	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	150	0	0	0		0	150	0	150
Demand	0	0	0	0		0	150	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 019

ACH Flow (Occupied)	1,350 *CFM*
ACH Flow (Unoccupied)	1,350 *CFM*
Maximum Cooling Flow	249 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	475	875	0	0		0	0	1,350	1,350
Demand	0	875	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	475	875	0	0		0	0	1,350	1,350
Demand	0	875	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	475	875	0	0		0	0	1,350	1,350
Demand	0	875	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	475	875	0	0		0	0	1,350	1,350
Demand	0	875	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 020

ACH Flow (Occupied)	220 *CFM*
ACH Flow (Unoccupied)	220 *CFM*
Maximum Cooling Flow	330 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	330	-330	0	0		0	0	0	0
Demand	0	-330	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	330	-330	0	0		0	0	0	0
Demand	0	-330	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	330	-330	0	0		0	0	0	0
Demand	0	-330	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	330	-330	0	0		0	0	0	0
Demand	0	-330	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 022

ACH Flow (Occupied)	35 *CFM*
ACH Flow (Unoccupied)	35 *CFM*
Maximum Cooling Flow	140 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	140	0	0	0		0	0	140	140
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 023

ACH Flow (Occupied)	150 *CFM*
ACH Flow (Unoccupied)	150 *CFM*
Maximum Cooling Flow	130 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	135	15	0	0		0	0	150	150
Demand	0	15	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	135	15	0	0		0	0	150	150
Demand	0	15	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	135	15	0	0		0	0	150	150
Demand	0	15	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	135	15	0	0		0	0	150	150
Demand	0	15	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 024

ACH Flow (Occupied)	35 *CFM*
ACH Flow (Unoccupied)	35 *CFM*
Maximum Cooling Flow	350 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	350	0	0	0		0	0	350	350
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 101

ACH Flow (Occupied)	450 *CFM*
ACH Flow (Unoccupied)	450 *CFM*
Maximum Cooling Flow	400 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	400	50	0	0		0	0	450	450
Demand	0	50	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	400	50	0	0		0	0	450	450
Demand	0	50	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	400	50	0	0		0	0	450	450
Demand	0	50	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	400	50	0	0		0	0	450	450
Demand	0	50	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 102

ACH Flow (Occupied)	90 *CFM*
ACH Flow (Unoccupied)	90 *CFM*
Maximum Cooling Flow	450 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	90	0	0	0		0	0	90	90
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	90	0	0	0		0	0	90	90
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	90	0	0	0		0	0	90	90
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	450	0	0	0		0	0	450	450
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 103

ACH Flow (Occupied)	35 *CFM*
ACH Flow (Unoccupied)	35 *CFM*
Maximum Cooling Flow	240 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	240	0	0	0		0	0	240	240
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 103A

ACH Flow (Occupied)	35 *CFM*
ACH Flow (Unoccupied)	35 *CFM*
Maximum Cooling Flow	280 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	280	0	0	0		0	0	280	280
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 104

ACH Flow (Occupied)	125 *CFM*
ACH Flow (Unoccupied)	125 *CFM*
Maximum Cooling Flow	0 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	0	125	0	0		0	0	125	125
Demand	0	125	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	0	125	0	0		0	0	125	125
Demand	0	125	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	0	125	0	0		0	0	125	125
Demand	0	125	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	0	125	0	0		0	0	125	125
Demand	0	125	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 105

ACH Flow (Occupied)	75 *CFM*
ACH Flow (Unoccupied)	75 *CFM*
Maximum Cooling Flow	140 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	75	0	0	0		0	0	75	75
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	75	0	0	0		0	0	75	75
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	75	0	0	0		0	0	75	75
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	140	0	0	0		0	0	140	140
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 106

ACH Flow (Occupied)	75 *CFM*
ACH Flow (Unoccupied)	75 *CFM*
Maximum Cooling Flow	430 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	75	0	0	0		0	0	75	75
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	75	0	0	0		0	0	75	75
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	75	0	0	0		0	0	75	75
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	430	0	0	0		0	0	430	430
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 107

ACH Flow (Occupied)	330 *CFM*
ACH Flow (Unoccupied)	330 *CFM*
Maximum Cooling Flow	499 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	4,745	250	0	0		4,800	195	0	4,995
Demand	0	250	0	0		4,800	195	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	2,545	250	0	0		2,600	195	0	2,795
Demand	0	250	0	0		2,600	195	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	2,545	250	0	0		2,600	195	0	2,795
Demand	0	250	0	0		2,600	195	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	2,545	250	0	0		2,600	195	0	2,795
Demand	0	250	0	0		2,600	195	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 108

ACH Flow (Occupied)	781 *CFM*
ACH Flow (Unoccupied)	781 *CFM*
Maximum Cooling Flow	1,100 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	706	75	0	0		0	0	781	781
Demand	0	75	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	706	75	0	0		0	0	781	781
Demand	0	75	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	706	75	0	0		0	0	781	781
Demand	0	75	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	1,100	75	0	0		0	0	1,175	1,175
Demand	0	75	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 109

ACH Flow (Occupied)	1,426 *CFM*
ACH Flow (Unoccupied)	1,426 *CFM*
Maximum Cooling Flow	2,340 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	5

Condition	Supply				=	Exhaust			Total
1A	Supply 1A	+ Offset	+ Office Min	+ CV Supply	=	Hood Max	+ Other Exh. Max	+ GEX 1A	Total Exhaust 1A
Hood	5,070	250	555	0		5,625	75	175	5,875
Demand	4,545	250	1,080	0		5,625	75	175	5,875
1B*	Supply 1B	+ Offset	+ Office Max	+ CV Supply	=	Hood Max	+ Other Exh. Max	+ GEX 1B	Total Exhaust 1B
2A	Supply 2A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 2A	Total Exhaust 2A
UnOcc Vent	2,370	250	555	0		2,925	75	175	3,175
Demand	1,845	250	1,080	0		2,925	75	175	3,175
2B*	Supply 2B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 2B	Total Exhaust 2B
3A	Supply 3A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 3A	Total Exhaust 3A
Occ Vent	2,370	250	555	0		2,925	75	175	3,175
Demand	1,845	250	1,080	0		2,925	75	175	3,175
3B*	Supply 3B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 3B	Total Exhaust 3B
4A	Supply 4A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 4A	Total Exhaust 4A
Thermal	2,370	250	555	0		2,925	75	175	3,175
Demand	2,340	250	1,080	0		2,925	75	670	3,670
4B*	Supply 4B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 120

ACH Flow (Occupied)	385 *CFM*
ACH Flow (Unoccupied)	385 *CFM*
Maximum Cooling Flow	385 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	385	-385	0	0		0	0	0	0
Demand	0	-385	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	385	-385	0	0		0	0	0	0
Demand	0	-385	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	385	-385	0	0		0	0	0	0
Demand	0	-385	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	385	-385	0	0		0	0	0	0
Demand	0	-385	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 201

ACH Flow (Occupied)	35 *CFM*
ACH Flow (Unoccupied)	35 *CFM*
Maximum Cooling Flow	360 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	35	0	0	0		0	0	35	35
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	360	0	0	0		0	0	360	360
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 202

ACH Flow (Occupied)	525 *CFM*
ACH Flow (Unoccupied)	525 *CFM*
Maximum Cooling Flow	1,175 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	900	125	0	0		750	225	50	1,025
Demand	0	125	0	0		750	225	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	400	125	0	0		150	225	150	525
Demand	0	125	0	0		150	225	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	400	125	0	0		150	225	150	525
Demand	0	125	0	0		150	225	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	1,175	125	0	0		150	225	925	1,300
Demand	0	125	0	0		150	225	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 203

ACH Flow (Occupied)	1,925 *CFM*
ACH Flow (Unoccupied)	1,925 *CFM*
Maximum Cooling Flow	615 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A	+ Offset	+ Office Min	+ CV Supply	=	Hood Max	+ Other Exh. Max	+ GEX 1A	Total Exhaust 1A
Hood	1,810	115	0	0		1,500	425	0	1,925
Demand	0	115	0	0		1,500	425	0	0
1B*	Supply 1B	+ Offset	+ Office Max	+ CV Supply	=	Hood Max	+ Other Exh. Max	+ GEX 1B	Total Exhaust 1B
2A	Supply 2A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 2A	Total Exhaust 2A
UnOcc Vent	1,810	115	0	0		1,500	425	0	1,925
Demand	0	115	0	0		1,500	425	0	0
2B*	Supply 2B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 2B	Total Exhaust 2B
3A	Supply 3A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 3A	Total Exhaust 3A
Occ Vent	1,810	115	0	0		1,500	425	0	1,925
Demand	0	115	0	0		1,500	425	0	0
3B*	Supply 3B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 3B	Total Exhaust 3B
4A	Supply 4A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 4A	Total Exhaust 4A
Thermal	1,810	115	0	0		1,500	425	0	1,925
Demand	0	115	0	0		1,500	425	0	0
4B*	Supply 4B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 204

ACH Flow (Occupied)	50 *CFM*
ACH Flow (Unoccupied)	50 *CFM*
Maximum Cooling Flow	450 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	50	0	0	0		0	0	50	50
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	50	0	0	0		0	0	50	50
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	50	0	0	0		0	0	50	50
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	450	0	0	0		0	0	450	450
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 205

ACH Flow (Occupied)	450 *CFM*
ACH Flow (Unoccupied)	450 *CFM*
Maximum Cooling Flow	450 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	450	0	0	0		0	0	450	450
Demand	0	0	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	450	0	0	0		0	0	450	450
Demand	0	0	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	450	0	0	0		0	0	450	450
Demand	0	0	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	450	0	0	0		0	0	450	450
Demand	0	0	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 206

ACH Flow (Occupied)	879 *CFM*
ACH Flow (Unoccupied)	878 *CFM*
Maximum Cooling Flow	2,875 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A	+ Offset	+ Office Min	+ CV Supply	=	Hood Max	+ Other Exh. Max	+ GEX 1A	Total Exhaust 1A
Hood	3,275	125	0	0		2,915	450	35	3,400
Demand	0	125	0	0		2,915	450	0	0
1B*	Supply 1B	+ Offset	+ Office Max	+ CV Supply	=	Hood Max	+ Other Exh. Max	+ GEX 1B	Total Exhaust 1B
2A	Supply 2A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 2A	Total Exhaust 2A
UnOcc Vent	2,295	125	0	0		1,935	450	35	2,420
Demand	0	125	0	0		1,935	450	0	0
2B*	Supply 2B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 2B	Total Exhaust 2B
3A	Supply 3A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 3A	Total Exhaust 3A
Occ Vent	2,295	125	0	0		1,935	450	35	2,420
Demand	0	125	0	0		1,935	450	0	0
3B*	Supply 3B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 3B	Total Exhaust 3B
4A	Supply 4A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 4A	Total Exhaust 4A
Thermal	2,875	125	0	0		1,935	450	615	3,000
Demand	0	125	0	0		1,935	450	0	0
4B*	Supply 4B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 207

ACH Flow (Occupied)	1,114 *CFM*
ACH Flow (Unoccupied)	1,114 *CFM*
Maximum Cooling Flow	2,445 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	3,070	125	0	0		3,160	0	35	3,195
Demand	0	125	0	0		3,160	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	1,845	125	0	0		1,935	0	35	1,970
Demand	0	125	0	0		1,935	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	1,845	125	0	0		1,935	0	35	1,970
Demand	0	125	0	0		1,935	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	2,445	125	0	0		1,935	0	635	2,570
Demand	0	125	0	0		1,935	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 208

ACH Flow (Occupied)	557 *CFM*
ACH Flow (Unoccupied)	557 *CFM*
Maximum Cooling Flow	2,470 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A	+ Offset	+ Office Min	+ CV Supply	=	Hood Max	+ Other Exh. Max	+ GEX 1A	Total Exhaust 1A
Hood	3,125	125	0	0		3,140	75	35	3,250
Demand	0	125	0	0		3,140	75	0	0
1B*	Supply 1B	+ Offset	+ Office Max	+ CV Supply	=	Hood Max	+ Other Exh. Max	+ GEX 1B	Total Exhaust 1B
2A	Supply 2A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 2A	Total Exhaust 2A
UnOcc Vent	1,920	125	0	0		1,935	75	35	2,045
Demand	0	125	0	0		1,935	75	0	0
2B*	Supply 2B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 2B	Total Exhaust 2B
3A	Supply 3A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 3A	Total Exhaust 3A
Occ Vent	1,920	125	0	0		1,935	75	35	2,045
Demand	0	125	0	0		1,935	75	0	0
3B*	Supply 3B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 3B	Total Exhaust 3B
4A	Supply 4A	+ Offset	+ Office Min	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 4A	Total Exhaust 4A
Thermal	2,470	125	0	0		1,935	75	585	2,595
Demand	0	125	0	0		1,935	75	0	0
4B*	Supply 4B	+ Offset	+ Office Max	+ CV Supply	=	Hood Min	+ Other Exh. Min	+ GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 209

ACH Flow (Occupied)	878 *CFM*
ACH Flow (Unoccupied)	878 *CFM*
Maximum Cooling Flow	1,855 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	4,200	125	0	0		4,325	0	0	4,325
Demand	0	125	0	0		4,325	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	3,000	125	0	0		3,125	0	0	3,125
Demand	0	125	0	0		3,125	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	3,000	125	0	0		3,125	0	0	3,125
Demand	0	125	0	0		3,125	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	3,000	125	0	0		3,125	0	0	3,125
Demand	0	125	0	0		3,125	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name 220

ACH Flow (Occupied)	375 *CFM*
ACH Flow (Unoccupied)	375 *CFM*
Maximum Cooling Flow	375 *CFM*
CV Supply Quantity	0
VAV Supply Quantity	1
VAV GEX Quantity	1

Condition	Supply				=	Exhaust			Total
1A	Supply 1A +	Offset +	Office Min +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1A	Total Exhaust 1A
Hood	375	-375	0	0		0	0	0	0
Demand	0	-375	0	0		0	0	0	0
1B*	Supply 1B +	Offset +	Office Max +	CV Supply	=	Hood Max +	Other Exh. Max +	GEX 1B	Total Exhaust 1B
2A	Supply 2A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2A	Total Exhaust 2A
UnOcc Vent	375	-375	0	0		0	0	0	0
Demand	0	-375	0	0		0	0	0	0
2B*	Supply 2B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 2B	Total Exhaust 2B
3A	Supply 3A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3A	Total Exhaust 3A
Occ Vent	375	-375	0	0		0	0	0	0
Demand	0	-375	0	0		0	0	0	0
3B*	Supply 3B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 3B	Total Exhaust 3B
4A	Supply 4A +	Offset +	Office Min +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4A	Total Exhaust 4A
Thermal	375	-375	0	0		0	0	0	0
Demand	0	-375	0	0		0	0	0	0
4B*	Supply 4B +	Offset +	Office Max +	CV Supply	=	Hood Min +	Other Exh. Min +	GEX 4B	Total Exhaust 4B

* If Applicable

Flow Unit: CFM

Stanford Stauffer Hall - Retrofit

Room Name	005
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	330	*CFM*
Room Area	288.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,168	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	7	
Occupied ACH Flow	350	*CFM*
Unoccupied ACH	7	
Unoccupied ACH Flow	350	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	350	*CFM*
GEX Min Flow	350	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	350	*CFM*
Total Exhaust Min Flow	350	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	350	*CFM*
Supply Min Flow	350	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	142	**9:00 AM**	317	**5:00 PM**	330
2:00 AM	142	**10:00 AM**	317	**6:00 PM**	264
3:00 AM	139	**11:00 AM**	317	**7:00 PM**	152
4:00 AM	139	**Noon**	251	**8:00 PM**	152
5:00 AM	139	**1:00 PM**	320	**9:00 PM**	152
6:00 AM	135	**2:00 PM**	323	**10:00 PM**	149
7:00 AM	248	**3:00 PM**	327	**11:00 PM**	145
8:00 AM	317	**4:00 PM**	327	**Midnight**	145

Stanford Stauffer Hall - Retrofit

Room Name	006
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	200	*CFM*
Room Area	175.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	1,926	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	35	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	35	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	200	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	200	*CFM*
Total Exhaust Min Flow	35	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	200	*CFM*
Supply Min Flow	35	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	86	**9:00 AM**	192	**5:00 PM**	200
2:00 AM	86	**10:00 AM**	192	**6:00 PM**	160
3:00 AM	84	**11:00 AM**	192	**7:00 PM**	92
4:00 AM	84	**Noon**	152	**8:00 PM**	92
5:00 AM	84	**1:00 PM**	194	**9:00 PM**	92
6:00 AM	82	**2:00 PM**	196	**10:00 PM**	90
7:00 AM	150	**3:00 PM**	198	**11:00 PM**	88
8:00 AM	192	**4:00 PM**	198	**Midnight**	88

Stanford Stauffer Hall - Retrofit

Room Name	007
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	590	*CFM*
Room Area	470.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	5,170	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	10	
Occupied ACH Flow	840	*CFM*
Unoccupied ACH	10	
Unoccupied ACH Flow	840	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	250	*CFM*
Fixed Offset Flow	250	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	765	*CFM*
GEX Min Flow	765	*CFM*
Other Exhaust Max Flow	75	*CFM*
Other Exhaust Min Flow	75	*CFM*
Total Exhaust Max Flow	840	*CFM*
Total Exhaust Min Flow	840	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	590	*CFM*
Supply Min Flow	590	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	254	**9:00 AM**	566	**5:00 PM**	590
2:00 AM	254	**10:00 AM**	566	**6:00 PM**	472
3:00 AM	248	**11:00 AM**	566	**7:00 PM**	271
4:00 AM	248	**Noon**	448	**8:00 PM**	271
5:00 AM	248	**1:00 PM**	572	**9:00 PM**	271
6:00 AM	242	**2:00 PM**	578	**10:00 PM**	266
7:00 AM	443	**3:00 PM**	584	**11:00 PM**	260
8:00 AM	566	**4:00 PM**	584	**Midnight**	260

Stanford Stauffer Hall - Retrofit

Room Name	008
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	570	*CFM*
Room Area	500.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	5,500	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	6	
Occupied ACH Flow	550	*CFM*
Unoccupied ACH	6	
Unoccupied ACH Flow	550	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	125	*CFM*
Fixed Offset Flow	125	*CFM*

Hood Count	2	
Hood Max Flow	2,000	*CFM*
Hood Min Flow	650	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	45	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	2,035	*CFM*
Total Exhaust Min Flow	685	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	1,910	*CFM*
Supply Min Flow	560	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	245	**9:00 AM**	547	**5:00 PM**	570
2:00 AM	245	**10:00 AM**	547	**6:00 PM**	456
3:00 AM	239	**11:00 AM**	547	**7:00 PM**	262
4:00 AM	239	**Noon**	433	**8:00 PM**	262
5:00 AM	239	**1:00 PM**	553	**9:00 PM**	262
6:00 AM	234	**2:00 PM**	559	**10:00 PM**	257
7:00 AM	428	**3:00 PM**	564	**11:00 PM**	251
8:00 AM	547	**4:00 PM**	564	**Midnight**	251

Stanford Stauffer Hall - Retrofit

Room Name	009
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	755	*CFM*
Room Area	565.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	6,216	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	8	
Occupied ACH Flow	880	*CFM*
Unoccupied ACH	8	
Unoccupied ACH Flow	880	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	125	*CFM*
Fixed Offset Flow	125	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	805	*CFM*
GEX Min Flow	805	*CFM*
Other Exhaust Max Flow	75	*CFM*
Other Exhaust Min Flow	75	*CFM*
Total Exhaust Max Flow	880	*CFM*
Total Exhaust Min Flow	880	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	755	*CFM*
Supply Min Flow	755	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	325	**9:00 AM**	725	**5:00 PM**	755
2:00 AM	325	**10:00 AM**	725	**6:00 PM**	604
3:00 AM	317	**11:00 AM**	725	**7:00 PM**	347
4:00 AM	317	**Noon**	574	**8:00 PM**	347
5:00 AM	317	**1:00 PM**	732	**9:00 PM**	347
6:00 AM	310	**2:00 PM**	740	**10:00 PM**	340
7:00 AM	566	**3:00 PM**	747	**11:00 PM**	332
8:00 AM	725	**4:00 PM**	747	**Midnight**	332

Stanford Stauffer Hall - Retrofit

Room Name	011
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	600	*CFM*
Room Area	589.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	6,480	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	90	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	90	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	600	*CFM*
GEX Min Flow	90	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	600	*CFM*
Total Exhaust Min Flow	90	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	600	*CFM*
Supply Min Flow	90	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	258	**9:00 AM**	576	**5:00 PM**	600
2:00 AM	258	**10:00 AM**	576	**6:00 PM**	480
3:00 AM	252	**11:00 AM**	576	**7:00 PM**	276
4:00 AM	252	**Noon**	456	**8:00 PM**	276
5:00 AM	252	**1:00 PM**	582	**9:00 PM**	276
6:00 AM	246	**2:00 PM**	588	**10:00 PM**	270
7:00 AM	450	**3:00 PM**	594	**11:00 PM**	264
8:00 AM	576	**4:00 PM**	594	**Midnight**	264

Stanford Stauffer Hall - Retrofit

Room Name	012
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	500	*CFM*
Room Area	377.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	4,148	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	60	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	60	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	500	*CFM*
GEX Min Flow	60	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	500	*CFM*
Total Exhaust Min Flow	60	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	500	*CFM*
Supply Min Flow	60	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	215	**9:00 AM**	480	**5:00 PM**	500
2:00 AM	215	**10:00 AM**	480	**6:00 PM**	400
3:00 AM	210	**11:00 AM**	480	**7:00 PM**	230
4:00 AM	210	**Noon**	380	**8:00 PM**	230
5:00 AM	210	**1:00 PM**	485	**9:00 PM**	230
6:00 AM	205	**2:00 PM**	490	**10:00 PM**	225
7:00 AM	375	**3:00 PM**	495	**11:00 PM**	220
8:00 AM	480	**4:00 PM**	495	**Midnight**	220

Stanford Stauffer Hall - Retrofit

Room Name	013
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	300	*CFM*
Room Area	256.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	2,816	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	40	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	40	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	300	*CFM*
GEX Min Flow	40	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	300	*CFM*
Total Exhaust Min Flow	40	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	300	*CFM*
Supply Min Flow	40	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	129	**9:00 AM**	288	**5:00 PM**	300
2:00 AM	129	**10:00 AM**	288	**6:00 PM**	240
3:00 AM	126	**11:00 AM**	288	**7:00 PM**	138
4:00 AM	126	**Noon**	228	**8:00 PM**	138
5:00 AM	126	**1:00 PM**	291	**9:00 PM**	138
6:00 AM	123	**2:00 PM**	294	**10:00 PM**	135
7:00 AM	225	**3:00 PM**	297	**11:00 PM**	132
8:00 AM	288	**4:00 PM**	297	**Midnight**	132

Stanford Stauffer Hall - Retrofit

Room Name	014
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	150	*CFM*
Room Area	138.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	1,518	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	35	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	35	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	150	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	150	*CFM*
Total Exhaust Min Flow	35	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	150	*CFM*
Supply Min Flow	35	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	65	**9:00 AM**	144	**5:00 PM**	150
2:00 AM	65	**10:00 AM**	144	**6:00 PM**	120
3:00 AM	63	**11:00 AM**	144	**7:00 PM**	69
4:00 AM	63	**Noon**	114	**8:00 PM**	69
5:00 AM	63	**1:00 PM**	146	**9:00 PM**	69
6:00 AM	62	**2:00 PM**	147	**10:00 PM**	68
7:00 AM	113	**3:00 PM**	149	**11:00 PM**	66
8:00 AM	144	**4:00 PM**	149	**Midnight**	66

Stanford Stauffer Hall - Retrofit

Room Name	015
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	150	*CFM*
Room Area	138.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	1,518	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	35	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	35	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	150	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	150	*CFM*
Total Exhaust Min Flow	35	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	150	*CFM*
Supply Min Flow	35	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	65	**9:00 AM**	144	**5:00 PM**	150
2:00 AM	65	**10:00 AM**	144	**6:00 PM**	120
3:00 AM	63	**11:00 AM**	144	**7:00 PM**	69
4:00 AM	63	**Noon**	114	**8:00 PM**	69
5:00 AM	63	**1:00 PM**	146	**9:00 PM**	69
6:00 AM	62	**2:00 PM**	147	**10:00 PM**	68
7:00 AM	113	**3:00 PM**	149	**11:00 PM**	66
8:00 AM	144	**4:00 PM**	149	**Midnight**	66

Stanford Stauffer Hall - Retrofit

Room Name	016
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	300	*CFM*
Room Area	253.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	2,784	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	40	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	40	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	300	*CFM*
GEX Min Flow	40	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	300	*CFM*
Total Exhaust Min Flow	40	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	300	*CFM*
Supply Min Flow	40	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	129	**9:00 AM**	288	**5:00 PM**	300
2:00 AM	129	**10:00 AM**	288	**6:00 PM**	240
3:00 AM	126	**11:00 AM**	288	**7:00 PM**	138
4:00 AM	126	**Noon**	228	**8:00 PM**	138
5:00 AM	126	**1:00 PM**	291	**9:00 PM**	138
6:00 AM	123	**2:00 PM**	294	**10:00 PM**	135
7:00 AM	225	**3:00 PM**	297	**11:00 PM**	132
8:00 AM	288	**4:00 PM**	297	**Midnight**	132

Stanford Stauffer Hall - Retrofit

Room Name	017
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	0	*CFM*
Room Area	150.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	1,650	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	4	
Occupied ACH Flow	100	*CFM*
Unoccupied ACH	4	
Unoccupied ACH Flow	100	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	0	*CFM*
GEX Min Flow	0	*CFM*
Other Exhaust Max Flow	150	*CFM*
Other Exhaust Min Flow	150	*CFM*
Total Exhaust Max Flow	150	*CFM*
Total Exhaust Min Flow	150	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	150	*CFM*
Supply Min Flow	150	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	0	**9:00 AM**	0	**5:00 PM**	0
2:00 AM	0	**10:00 AM**	0	**6:00 PM**	0
3:00 AM	0	**11:00 AM**	0	**7:00 PM**	0
4:00 AM	0	**Noon**	0	**8:00 PM**	0
5:00 AM	0	**1:00 PM**	0	**9:00 PM**	0
6:00 AM	0	**2:00 PM**	0	**10:00 PM**	0
7:00 AM	0	**3:00 PM**	0	**11:00 PM**	0
8:00 AM	0	**4:00 PM**	0	**Midnight**	0

Stanford Stauffer Hall - Retrofit

Room Name	019
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	249	*CFM*
Room Area	150.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	1,650	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	49	
Occupied ACH Flow	1,350	*CFM*
Unoccupied ACH	49	
Unoccupied ACH Flow	1,350	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	875	*CFM*
Fixed Offset Flow	875	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	1,350	*CFM*
GEX Min Flow	1,350	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	1,350	*CFM*
Total Exhaust Min Flow	1,350	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	475	*CFM*
Supply Min Flow	475	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	107	**9:00 AM**	239	**5:00 PM**	249
2:00 AM	107	**10:00 AM**	239	**6:00 PM**	199
3:00 AM	105	**11:00 AM**	239	**7:00 PM**	115
4:00 AM	105	**Noon**	189	**8:00 PM**	115
5:00 AM	105	**1:00 PM**	242	**9:00 PM**	115
6:00 AM	102	**2:00 PM**	244	**10:00 PM**	112
7:00 AM	187	**3:00 PM**	247	**11:00 PM**	110
8:00 AM	239	**4:00 PM**	247	**Midnight**	110

Stanford Stauffer Hall - Retrofit

Room Name	020
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	330	*CFM*
Room Area	200.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	2,200	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	6	
Occupied ACH Flow	220	*CFM*
Unoccupied ACH	6	
Unoccupied ACH Flow	220	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	-330	*CFM*
Fixed Offset Flow	330	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	0	*CFM*
GEX Min Flow	0	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	0	*CFM*
Total Exhaust Min Flow	0	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	330	*CFM*
Supply Min Flow	330	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	142	**9:00 AM**	317	**5:00 PM**	330
2:00 AM	142	**10:00 AM**	317	**6:00 PM**	264
3:00 AM	139	**11:00 AM**	317	**7:00 PM**	152
4:00 AM	139	**Noon**	251	**8:00 PM**	152
5:00 AM	139	**1:00 PM**	320	**9:00 PM**	152
6:00 AM	135	**2:00 PM**	323	**10:00 PM**	149
7:00 AM	248	**3:00 PM**	327	**11:00 PM**	145
8:00 AM	317	**4:00 PM**	327	**Midnight**	145

Stanford Stauffer Hall - Retrofit

Room Name	022
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	140	*CFM*
Room Area	300.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,300	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	35	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	35	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	140	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	140	*CFM*
Total Exhaust Min Flow	35	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	140	*CFM*
Supply Min Flow	35	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	60	**9:00 AM**	134	**5:00 PM**	140
2:00 AM	60	**10:00 AM**	134	**6:00 PM**	112
3:00 AM	59	**11:00 AM**	134	**7:00 PM**	64
4:00 AM	59	**Noon**	106	**8:00 PM**	64
5:00 AM	59	**1:00 PM**	136	**9:00 PM**	64
6:00 AM	57	**2:00 PM**	137	**10:00 PM**	63
7:00 AM	105	**3:00 PM**	139	**11:00 PM**	62
8:00 AM	134	**4:00 PM**	139	**Midnight**	62

Stanford Stauffer Hall - Retrofit

Room Name	023
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	130	*CFM*
Room Area	100.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	1,100	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	8	
Occupied ACH Flow	150	*CFM*
Unoccupied ACH	8	
Unoccupied ACH Flow	150	*CFM*
Offset Option	10%	
Offset Flow	15	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	150	*CFM*
GEX Min Flow	150	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	150	*CFM*
Total Exhaust Min Flow	150	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	135	*CFM*
Supply Min Flow	135	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	56	**9:00 AM**	125	**5:00 PM**	130
2:00 AM	56	**10:00 AM**	125	**6:00 PM**	104
3:00 AM	55	**11:00 AM**	125	**7:00 PM**	60
4:00 AM	55	**Noon**	99	**8:00 PM**	60
5:00 AM	55	**1:00 PM**	126	**9:00 PM**	60
6:00 AM	53	**2:00 PM**	127	**10:00 PM**	59
7:00 AM	98	**3:00 PM**	129	**11:00 PM**	57
8:00 AM	125	**4:00 PM**	129	**Midnight**	57

Stanford Stauffer Hall - Retrofit

Room Name	024
Room Description	Electrical
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	350	*CFM*
Room Area	200.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	2,200	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	35	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	35	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	350	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	350	*CFM*
Total Exhaust Min Flow	35	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	350	*CFM*
Supply Min Flow	35	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	151	**9:00 AM**	336	**5:00 PM**	350
2:00 AM	151	**10:00 AM**	336	**6:00 PM**	280
3:00 AM	147	**11:00 AM**	336	**7:00 PM**	161
4:00 AM	147	**Noon**	266	**8:00 PM**	161
5:00 AM	147	**1:00 PM**	340	**9:00 PM**	161
6:00 AM	144	**2:00 PM**	343	**10:00 PM**	158
7:00 AM	263	**3:00 PM**	347	**11:00 PM**	154
8:00 AM	336	**4:00 PM**	347	**Midnight**	154

Stanford Stauffer Hall - Retrofit

Room Name	101
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	400	*CFM*
Room Area	300.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,300	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	8	
Occupied ACH Flow	450	*CFM*
Unoccupied ACH	8	
Unoccupied ACH Flow	450	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	50	*CFM*
Fixed Offset Flow	50	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	450	*CFM*
GEX Min Flow	450	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	450	*CFM*
Total Exhaust Min Flow	450	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	400	*CFM*
Supply Min Flow	400	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	172	**9:00 AM**	384	**5:00 PM**	400
2:00 AM	172	**10:00 AM**	384	**6:00 PM**	320
3:00 AM	168	**11:00 AM**	384	**7:00 PM**	184
4:00 AM	168	**Noon**	304	**8:00 PM**	184
5:00 AM	168	**1:00 PM**	388	**9:00 PM**	184
6:00 AM	164	**2:00 PM**	392	**10:00 PM**	180
7:00 AM	300	**3:00 PM**	396	**11:00 PM**	176
8:00 AM	384	**4:00 PM**	396	**Midnight**	176

Stanford Stauffer Hall - Retrofit

Room Name	102
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	450	*CFM*
Room Area	275.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,026	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	2	
Occupied ACH Flow	90	*CFM*
Unoccupied ACH	2	
Unoccupied ACH Flow	90	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	450	*CFM*
GEX Min Flow	90	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	450	*CFM*
Total Exhaust Min Flow	90	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	450	*CFM*
Supply Min Flow	90	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	194	**9:00 AM**	432	**5:00 PM**	450
2:00 AM	194	**10:00 AM**	432	**6:00 PM**	360
3:00 AM	189	**11:00 AM**	432	**7:00 PM**	207
4:00 AM	189	**Noon**	342	**8:00 PM**	207
5:00 AM	189	**1:00 PM**	437	**9:00 PM**	207
6:00 AM	185	**2:00 PM**	441	**10:00 PM**	203
7:00 AM	338	**3:00 PM**	446	**11:00 PM**	198
8:00 AM	432	**4:00 PM**	446	**Midnight**	198

Stanford Stauffer Hall - Retrofit

Room Name	103
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	240	*CFM*
Room Area	170.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	1,870	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	35	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	35	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	240	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	240	*CFM*
Total Exhaust Min Flow	35	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	240	*CFM*
Supply Min Flow	35	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	103	**9:00 AM**	230	**5:00 PM**	240
2:00 AM	103	**10:00 AM**	230	**6:00 PM**	192
3:00 AM	101	**11:00 AM**	230	**7:00 PM**	110
4:00 AM	101	**Noon**	182	**8:00 PM**	110
5:00 AM	101	**1:00 PM**	233	**9:00 PM**	110
6:00 AM	98	**2:00 PM**	235	**10:00 PM**	108
7:00 AM	180	**3:00 PM**	238	**11:00 PM**	106
8:00 AM	230	**4:00 PM**	238	**Midnight**	106

Stanford Stauffer Hall - Retrofit

Room Name	103A
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	280	*CFM*
Room Area	232.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	2,552	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	35	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	35	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	280	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	280	*CFM*
Total Exhaust Min Flow	35	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	280	*CFM*
Supply Min Flow	35	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	120	**9:00 AM**	269	**5:00 PM**	280
2:00 AM	120	**10:00 AM**	269	**6:00 PM**	224
3:00 AM	118	**11:00 AM**	269	**7:00 PM**	129
4:00 AM	118	**Noon**	213	**8:00 PM**	129
5:00 AM	118	**1:00 PM**	272	**9:00 PM**	129
6:00 AM	115	**2:00 PM**	274	**10:00 PM**	126
7:00 AM	210	**3:00 PM**	277	**11:00 PM**	123
8:00 AM	269	**4:00 PM**	277	**Midnight**	123

Stanford Stauffer Hall - Retrofit

Room Name	104
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	0	*CFM*
Room Area	300.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,300	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	2	
Occupied ACH Flow	125	*CFM*
Unoccupied ACH	2	
Unoccupied ACH Flow	125	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	125	*CFM*
Fixed Offset Flow	125	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	125	*CFM*
GEX Min Flow	125	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	125	*CFM*
Total Exhaust Min Flow	125	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	0	*CFM*
Supply Min Flow	0	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	0	**9:00 AM**	0	**5:00 PM**	0
2:00 AM	0	**10:00 AM**	0	**6:00 PM**	0
3:00 AM	0	**11:00 AM**	0	**7:00 PM**	0
4:00 AM	0	**Noon**	0	**8:00 PM**	0
5:00 AM	0	**1:00 PM**	0	**9:00 PM**	0
6:00 AM	0	**2:00 PM**	0	**10:00 PM**	0
7:00 AM	0	**3:00 PM**	0	**11:00 PM**	0
8:00 AM	0	**4:00 PM**	0	**Midnight**	0

Stanford Stauffer Hall - Retrofit

Room Name	105
Room Description	Office
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	140	*CFM*
Room Area	150.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	1,650	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	3	
Occupied ACH Flow	75	*CFM*
Unoccupied ACH	3	
Unoccupied ACH Flow	75	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	140	*CFM*
GEX Min Flow	75	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	140	*CFM*
Total Exhaust Min Flow	75	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	140	*CFM*
Supply Min Flow	75	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	60	**9:00 AM**	134	**5:00 PM**	140
2:00 AM	60	**10:00 AM**	134	**6:00 PM**	112
3:00 AM	59	**11:00 AM**	134	**7:00 PM**	64
4:00 AM	59	**Noon**	106	**8:00 PM**	64
5:00 AM	59	**1:00 PM**	136	**9:00 PM**	64
6:00 AM	57	**2:00 PM**	137	**10:00 PM**	63
7:00 AM	105	**3:00 PM**	139	**11:00 PM**	62
8:00 AM	134	**4:00 PM**	139	**Midnight**	62

Stanford Stauffer Hall - Retrofit

Room Name	106
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	430	*CFM*
Room Area	456.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	5,016	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	75	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	75	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	430	*CFM*
GEX Min Flow	75	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	430	*CFM*
Total Exhaust Min Flow	75	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	430	*CFM*
Supply Min Flow	75	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	185	**9:00 AM**	413	**5:00 PM**	430
2:00 AM	185	**10:00 AM**	413	**6:00 PM**	344
3:00 AM	181	**11:00 AM**	413	**7:00 PM**	198
4:00 AM	181	**Noon**	327	**8:00 PM**	198
5:00 AM	181	**1:00 PM**	417	**9:00 PM**	198
6:00 AM	176	**2:00 PM**	421	**10:00 PM**	194
7:00 AM	323	**3:00 PM**	426	**11:00 PM**	189
8:00 AM	413	**4:00 PM**	426	**Midnight**	189

Stanford Stauffer Hall - Retrofit

Room Name	107
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	Yes	
Max Cooling Flow	499	*CFM*
Room Area	300.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,300	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	6	
Occupied ACH Flow	330	*CFM*
Unoccupied ACH	6	
Unoccupied ACH Flow	330	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	250	*CFM*
Fixed Offset Flow	250	*CFM*

Hood Count	8	
Hood Max Flow	4,800	*CFM*
Hood Min Flow	2,600	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	0	*CFM*
GEX Min Flow	0	*CFM*
Other Exhaust Max Flow	195	*CFM*
Other Exhaust Min Flow	195	*CFM*
Total Exhaust Max Flow	4,995	*CFM*
Total Exhaust Min Flow	2,795	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	4,745	*CFM*
Supply Min Flow	2,545	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	215	**9:00 AM**	479	**5:00 PM**	499
2:00 AM	215	**10:00 AM**	479	**6:00 PM**	399
3:00 AM	210	**11:00 AM**	479	**7:00 PM**	230
4:00 AM	210	**Noon**	379	**8:00 PM**	230
5:00 AM	210	**1:00 PM**	484	**9:00 PM**	230
6:00 AM	205	**2:00 PM**	489	**10:00 PM**	225
7:00 AM	374	**3:00 PM**	494	**11:00 PM**	220
8:00 AM	479	**4:00 PM**	494	**Midnight**	220

Stanford Stauffer Hall - Retrofit

Room Name	108
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	1,100	*CFM*
Room Area	504.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	5,544	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	8	
Occupied ACH Flow	781	*CFM*
Unoccupied ACH	8	
Unoccupied ACH Flow	781	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	75	*CFM*
Fixed Offset Flow	75	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	1,175	*CFM*
GEX Min Flow	781	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	1,175	*CFM*
Total Exhaust Min Flow	781	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	1,100	*CFM*
Supply Min Flow	706	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	473	**9:00 AM**	1,056	**5:00 PM**	1,100
2:00 AM	473	**10:00 AM**	1,056	**6:00 PM**	880
3:00 AM	462	**11:00 AM**	1,056	**7:00 PM**	506
4:00 AM	462	**Noon**	836	**8:00 PM**	506
5:00 AM	462	**1:00 PM**	1,067	**9:00 PM**	506
6:00 AM	451	**2:00 PM**	1,078	**10:00 PM**	495
7:00 AM	825	**3:00 PM**	1,089	**11:00 PM**	484
8:00 AM	1,056	**4:00 PM**	1,089	**Midnight**	484

Stanford Stauffer Hall - Retrofit

Room Name	109
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	2,340	*CFM*
Room Area	1,296.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	14,256	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	6	
Occupied ACH Flow	1,426	*CFM*
Unoccupied ACH	6	
Unoccupied ACH Flow	1,426	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	250	*CFM*
Fixed Offset Flow	250	*CFM*

Hood Count	9	
Hood Max Flow	5,625	*CFM*
Hood Min Flow	2,925	*CFM*
Office Max Flow	1,080	*CFM*
Office Min Flow	555	*CFM*
GEX Type	VAV	
GEX Valve Quantity	5	
GEX Max Flow	670	*CFM*
GEX Min Flow	175	*CFM*
Other Exhaust Max Flow	75	*CFM*
Other Exhaust Min Flow	75	*CFM*
Total Exhaust Max Flow	5,875	*CFM*
Total Exhaust Min Flow	3,175	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	5,070	*CFM*
Supply Min Flow	1,845	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	1,006	**9:00 AM**	2,246	**5:00 PM**	2,340
2:00 AM	1,006	**10:00 AM**	2,246	**6:00 PM**	1,872
3:00 AM	983	**11:00 AM**	2,246	**7:00 PM**	1,076
4:00 AM	983	**Noon**	1,778	**8:00 PM**	1,076
5:00 AM	983	**1:00 PM**	2,270	**9:00 PM**	1,076
6:00 AM	959	**2:00 PM**	2,293	**10:00 PM**	1,053
7:00 AM	1,755	**3:00 PM**	2,317	**11:00 PM**	1,030
8:00 AM	2,246	**4:00 PM**	2,317	**Midnight**	1,030

Stanford Stauffer Hall - Retrofit

Room Name	120
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	385	*CFM*
Room Area	300.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,300	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	7	
Occupied ACH Flow	385	*CFM*
Unoccupied ACH	7	
Unoccupied ACH Flow	385	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	-385	*CFM*
Fixed Offset Flow	385	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	0	*CFM*
GEX Min Flow	0	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	0	*CFM*
Total Exhaust Min Flow	0	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	385	*CFM*
Supply Min Flow	385	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	166	**9:00 AM**	370	**5:00 PM**	385
2:00 AM	166	**10:00 AM**	370	**6:00 PM**	308
3:00 AM	162	**11:00 AM**	370	**7:00 PM**	177
4:00 AM	162	**Noon**	293	**8:00 PM**	177
5:00 AM	162	**1:00 PM**	373	**9:00 PM**	177
6:00 AM	158	**2:00 PM**	377	**10:00 PM**	173
7:00 AM	289	**3:00 PM**	381	**11:00 PM**	169
8:00 AM	370	**4:00 PM**	381	**Midnight**	169

Stanford Stauffer Hall - Retrofit

Room Name	201
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	360	*CFM*
Room Area	232.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	2,552	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	35	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	35	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	360	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	360	*CFM*
Total Exhaust Min Flow	35	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	360	*CFM*
Supply Min Flow	35	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	155	**9:00 AM**	346	**5:00 PM**	360
2:00 AM	155	**10:00 AM**	346	**6:00 PM**	288
3:00 AM	151	**11:00 AM**	346	**7:00 PM**	166
4:00 AM	151	**Noon**	274	**8:00 PM**	166
5:00 AM	151	**1:00 PM**	349	**9:00 PM**	166
6:00 AM	148	**2:00 PM**	353	**10:00 PM**	162
7:00 AM	270	**3:00 PM**	356	**11:00 PM**	158
8:00 AM	346	**4:00 PM**	356	**Midnight**	158

Stanford Stauffer Hall - Retrofit

Room Name	202
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	1,175	*CFM*
Room Area	324.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,564	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	9	
Occupied ACH Flow	525	*CFM*
Unoccupied ACH	4	
Unoccupied ACH Flow	525	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	125	*CFM*
Fixed Offset Flow	125	*CFM*

Hood Count	1	
Hood Max Flow	750	*CFM*
Hood Min Flow	150	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	925	*CFM*
GEX Min Flow	50	*CFM*
Other Exhaust Max Flow	225	*CFM*
Other Exhaust Min Flow	225	*CFM*
Total Exhaust Max Flow	1,300	*CFM*
Total Exhaust Min Flow	525	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	1,175	*CFM*
Supply Min Flow	400	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	505	**9:00 AM**	1,128	**5:00 PM**	1,175
2:00 AM	505	**10:00 AM**	1,128	**6:00 PM**	940
3:00 AM	494	**11:00 AM**	1,128	**7:00 PM**	541
4:00 AM	494	**Noon**	893	**8:00 PM**	541
5:00 AM	494	**1:00 PM**	1,140	**9:00 PM**	541
6:00 AM	482	**2:00 PM**	1,152	**10:00 PM**	529
7:00 AM	881	**3:00 PM**	1,163	**11:00 PM**	517
8:00 AM	1,128	**4:00 PM**	1,163	**Midnight**	517

Stanford Stauffer Hall - Retrofit

Room Name	203
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	615	*CFM*
Room Area	390.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	4,290	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	27	
Occupied ACH Flow	1,925	*CFM*
Unoccupied ACH	27	
Unoccupied ACH Flow	1,925	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	115	*CFM*
Fixed Offset Flow	115	*CFM*

Hood Count	1	
Hood Max Flow	1,500	*CFM*
Hood Min Flow	1,500	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	0	*CFM*
GEX Min Flow	0	*CFM*
Other Exhaust Max Flow	425	*CFM*
Other Exhaust Min Flow	425	*CFM*
Total Exhaust Max Flow	1,925	*CFM*
Total Exhaust Min Flow	1,925	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	1,810	*CFM*
Supply Min Flow	1,810	*CFM*

Room Maximum Cooling Flow Profile

Flow Unit: CFM

1:00 AM	264	**9:00 AM**	590	**5:00 PM**	615
2:00 AM	264	**10:00 AM**	590	**6:00 PM**	492
3:00 AM	258	**11:00 AM**	590	**7:00 PM**	283
4:00 AM	258	**Noon**	467	**8:00 PM**	283
5:00 AM	258	**1:00 PM**	597	**9:00 PM**	283
6:00 AM	252	**2:00 PM**	603	**10:00 PM**	277
7:00 AM	461	**3:00 PM**	609	**11:00 PM**	271
8:00 AM	590	**4:00 PM**	609	**Midnight**	271

Stanford Stauffer Hall - Retrofit

Room Name	204
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	450	*CFM*
Room Area	285.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,136	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	1	
Occupied ACH Flow	50	*CFM*
Unoccupied ACH	1	
Unoccupied ACH Flow	50	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	450	*CFM*
GEX Min Flow	50	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	450	*CFM*
Total Exhaust Min Flow	50	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	450	*CFM*
Supply Min Flow	50	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	194	**9:00 AM**	432	**5:00 PM**	450
2:00 AM	194	**10:00 AM**	432	**6:00 PM**	360
3:00 AM	189	**11:00 AM**	432	**7:00 PM**	207
4:00 AM	189	**Noon**	342	**8:00 PM**	207
5:00 AM	189	**1:00 PM**	437	**9:00 PM**	207
6:00 AM	185	**2:00 PM**	441	**10:00 PM**	203
7:00 AM	338	**3:00 PM**	446	**11:00 PM**	198
8:00 AM	432	**4:00 PM**	446	**Midnight**	198

Stanford Stauffer Hall - Retrofit

Room Name	205
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	450	*CFM*
Room Area	287.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,158	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	9	
Occupied ACH Flow	450	*CFM*
Unoccupied ACH	9	
Unoccupied ACH Flow	450	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	0	*CFM*
Fixed Offset Flow	0	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	450	*CFM*
GEX Min Flow	450	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	450	*CFM*
Total Exhaust Min Flow	450	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	450	*CFM*
Supply Min Flow	450	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	194	**9:00 AM**	432	**5:00 PM**	450
2:00 AM	194	**10:00 AM**	432	**6:00 PM**	360
3:00 AM	189	**11:00 AM**	432	**7:00 PM**	207
4:00 AM	189	**Noon**	342	**8:00 PM**	207
5:00 AM	189	**1:00 PM**	437	**9:00 PM**	207
6:00 AM	185	**2:00 PM**	441	**10:00 PM**	203
7:00 AM	338	**3:00 PM**	446	**11:00 PM**	198
8:00 AM	432	**4:00 PM**	446	**Midnight**	198

Stanford Stauffer Hall - Retrofit

Room Name	206
Room Description	5 hoods
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	2,875	*CFM*
Room Area	798.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	8,778	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	6	
Occupied ACH Flow	879	*CFM*
Unoccupied ACH	6	
Unoccupied ACH Flow	878	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	125	*CFM*
Fixed Offset Flow	125	*CFM*

Hood Count	5	
Hood Max Flow	2,915	*CFM*
Hood Min Flow	1,935	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	615	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	450	*CFM*
Other Exhaust Min Flow	450	*CFM*
Total Exhaust Max Flow	3,400	*CFM*
Total Exhaust Min Flow	2,420	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	3,275	*CFM*
Supply Min Flow	2,295	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	1,236	**9:00 AM**	2,760	**5:00 PM**	2,875
2:00 AM	1,236	**10:00 AM**	2,760	**6:00 PM**	2,300
3:00 AM	1,208	**11:00 AM**	2,760	**7:00 PM**	1,323
4:00 AM	1,208	**Noon**	2,185	**8:00 PM**	1,323
5:00 AM	1,208	**1:00 PM**	2,789	**9:00 PM**	1,323
6:00 AM	1,179	**2:00 PM**	2,818	**10:00 PM**	1,294
7:00 AM	2,156	**3:00 PM**	2,846	**11:00 PM**	1,265
8:00 AM	2,760	**4:00 PM**	2,846	**Midnight**	1,265

Stanford Stauffer Hall - Retrofit

Room Name	207
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	2,445	*CFM*
Room Area	1,012.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	11,132	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	6	
Occupied ACH Flow	1,114	*CFM*
Unoccupied ACH	6	
Unoccupied ACH Flow	1,114	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	125	*CFM*
Fixed Offset Flow	125	*CFM*

Hood Count	5	
Hood Max Flow	3,160	*CFM*
Hood Min Flow	1,935	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	635	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	3,195	*CFM*
Total Exhaust Min Flow	1,970	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	3,070	*CFM*
Supply Min Flow	1,845	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	1,051	**9:00 AM**	2,347	**5:00 PM**	2,445
2:00 AM	1,051	**10:00 AM**	2,347	**6:00 PM**	1,956
3:00 AM	1,027	**11:00 AM**	2,347	**7:00 PM**	1,125
4:00 AM	1,027	**Noon**	1,858	**8:00 PM**	1,125
5:00 AM	1,027	**1:00 PM**	2,372	**9:00 PM**	1,125
6:00 AM	1,002	**2:00 PM**	2,396	**10:00 PM**	1,100
7:00 AM	1,834	**3:00 PM**	2,421	**11:00 PM**	1,076
8:00 AM	2,347	**4:00 PM**	2,421	**Midnight**	1,076

Stanford Stauffer Hall - Retrofit

Room Name	208
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	2,470	*CFM*
Room Area	506.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	5,566	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	6	
Occupied ACH Flow	557	*CFM*
Unoccupied ACH	6	
Unoccupied ACH Flow	557	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	125	*CFM*
Fixed Offset Flow	125	*CFM*

Hood Count	5	
Hood Max Flow	3,140	*CFM*
Hood Min Flow	1,935	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	585	*CFM*
GEX Min Flow	35	*CFM*
Other Exhaust Max Flow	75	*CFM*
Other Exhaust Min Flow	75	*CFM*
Total Exhaust Max Flow	3,250	*CFM*
Total Exhaust Min Flow	2,045	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	3,125	*CFM*
Supply Min Flow	1,920	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	1,062	**9:00 AM**	2,371	**5:00 PM**	2,470
2:00 AM	1,062	**10:00 AM**	2,371	**6:00 PM**	1,976
3:00 AM	1,037	**11:00 AM**	2,371	**7:00 PM**	1,136
4:00 AM	1,037	**Noon**	1,877	**8:00 PM**	1,136
5:00 AM	1,037	**1:00 PM**	2,396	**9:00 PM**	1,136
6:00 AM	1,013	**2:00 PM**	2,421	**10:00 PM**	1,112
7:00 AM	1,853	**3:00 PM**	2,445	**11:00 PM**	1,087
8:00 AM	2,371	**4:00 PM**	2,445	**Midnight**	1,087

Stanford Stauffer Hall - Retrofit

Room Name	209
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Negative	
Calc Max Cooling Flow?	No	
Max Cooling Flow	1,855	*CFM*
Room Area	798.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	8,778	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	6	
Occupied ACH Flow	878	*CFM*
Unoccupied ACH	6	
Unoccupied ACH Flow	878	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	125	*CFM*
Fixed Offset Flow	125	*CFM*

Hood Count	6	
Hood Max Flow	4,325	*CFM*
Hood Min Flow	3,125	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	0	*CFM*
GEX Min Flow	0	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	4,325	*CFM*
Total Exhaust Min Flow	3,125	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	4,200	*CFM*
Supply Min Flow	3,000	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	798	**9:00 AM**	1,781	**5:00 PM**	1,855
2:00 AM	798	**10:00 AM**	1,781	**6:00 PM**	1,484
3:00 AM	779	**11:00 AM**	1,781	**7:00 PM**	853
4:00 AM	779	**Noon**	1,410	**8:00 PM**	853
5:00 AM	779	**1:00 PM**	1,799	**9:00 PM**	853
6:00 AM	761	**2:00 PM**	1,818	**10:00 PM**	835
7:00 AM	1,391	**3:00 PM**	1,836	**11:00 PM**	816
8:00 AM	1,781	**4:00 PM**	1,836	**Midnight**	816

Stanford Stauffer Hall - Retrofit

Room Name	220
Room Description	
Corridor	Basement
Supply AHU	AHU 1
Exhaust Fan	Efan 1
Central Plant	CP 1

Pressure State	Positive	
Calc Max Cooling Flow?	No	
Max Cooling Flow	375	*CFM*
Room Area	300.00	*Sq. Ft*
Ceiling Height	11.00	*Ft*
Room Volume	3,300	*Cubic Feet*
Room Temp Set Point	74	*Deg F*
Heat Gain	10	*Watts/Sq. Ft*
Occupied ACH	7	
Occupied ACH Flow	375	*CFM*
Unoccupied ACH	7	
Unoccupied ACH Flow	375	*CFM*
Offset Option	10% upto fixed offset flow	
Offset Flow	-375	*CFM*
Fixed Offset Flow	375	*CFM*

Hood Count	0	
Hood Max Flow	0	*CFM*
Hood Min Flow	0	*CFM*
Office Max Flow	0	*CFM*
Office Min Flow	0	*CFM*
GEX Type	VAV	
GEX Valve Quantity	1	
GEX Max Flow	0	*CFM*
GEX Min Flow	0	*CFM*
Other Exhaust Max Flow	0	*CFM*
Other Exhaust Min Flow	0	*CFM*
Total Exhaust Max Flow	0	*CFM*
Total Exhaust Min Flow	0	*CFM*
Supply Type	VAV	
Supply Valve Quantity	1	
Supply Max Flow	375	*CFM*
Supply Min Flow	375	*CFM*

Room Maximum Cooling Flow Profile *Flow Unit: CFM*

1:00 AM	161	**9:00 AM**	360	**5:00 PM**	375
2:00 AM	161	**10:00 AM**	360	**6:00 PM**	300
3:00 AM	158	**11:00 AM**	360	**7:00 PM**	173
4:00 AM	158	**Noon**	285	**8:00 PM**	173
5:00 AM	158	**1:00 PM**	364	**9:00 PM**	173
6:00 AM	154	**2:00 PM**	368	**10:00 PM**	169
7:00 AM	281	**3:00 PM**	371	**11:00 PM**	165
8:00 AM	360	**4:00 PM**	371	**Midnight**	165

Stanford Stauffer Hall - Retrofit

October 23, 2010

Exhaust Fan System

Name	Area Served	Control Type	Design Flow	Design Power	Static Pressure	Fan Efficiency	Speed Control
Efan 1	Main Exhaust	***CV***	42,435 *CFM*	41.8 *Hp*	5.00 *"w.c.*	80 *%*	Constant Air Volume
		VAV	40,200 *CFM*	39.6 *Hp*			
		CV-UBC	36,010 *CFM*	35.5 *Hp*			
		VAV-UBC	35,323 *CFM*	34.8 *Hp*			
Total		***CV***	**42,435** *CFM*	**41.8** *Hp*			
		VAV	**40,200** *CFM*	**39.6** *Hp*			
		CV-UBC	**36,010** *CFM*	**35.5** *Hp*			
		VAV-UBC	**35,323** *CFM*	**34.8** *Hp*			

Supply AHU System

Name	Area Served	Control Type	DesignFlow	Design Power	Static Pressure	Fan Efficiency	Speed Control
AHU 1	Main Supply	***CV***	41,345 *CFM*	40.7 *Hp*	5.00 *"w.c.*	80 *%*	Variable Frequency Drive
		VAV	39,110 *CFM*	38.5 *Hp*			
		CV-UBC	34,920 *CFM*	34.4 *Hp*			
		VAV-UBC	34,233 *CFM*	33.7 *Hp*			
Total		***CV***	**41,345** *CFM*	**40.7** *Hp*			
		VAV	**39,110** *CFM*	**38.5** *Hp*			
		CV-UBC	**34,920** *CFM*	**34.4** *Hp*			
		VAV-UBC	**34,233** *CFM*	**33.7** *Hp*			

Central Plant System

Name	Area Served	SAT Cooling Temp	SAT Heating Temp	Cooling Efficiency	Heating Efficiency
CP 1	Main	55 *Deg F*	55 *Deg F*	1.10 *kW/Ton*	80 *%*

Stanford Stauffer Hall - Retrofit

October 23, 2010

System Diversity Comparison

Flow Unit: *CFM*

	Exhaust System *99.00% Design*			Supply System *99.00% Design*			Central Plant *99.00% Design*		
	Diversity	Design Flow	Average Flow	Diversity	Design Flow	Average Flow	Diversity	Design Flow	Average Flow
CV	100 %	42,435	42,435	100 %	41,345	41,345	100 %	41,345	41,345
CV-UBC	85 %	36,010	32,028	84 %	34,920	30,938	84 %	34,920	30,938
VAV	95 %	40,200	37,286	95 %	39,110	36,196	95 %	39,110	36,196
VAV-UBC	83 %	35,323	30,994	83 %	34,233	29,904	83 %	34,233	29,904

Diversity Calculation: Control Type Design Flow / Constant Volume Design Flow

Exhaust Fan System Flow Diversity

Efan 1

	CV	CV-UBC	VAV	VAV-UBC
Average Flow	42,435 *CFM*	32,028 *CFM*	37,286 *CFM*	30,994 *CFM*
Design Flow	42,435 *CFM*	36,010 *CFM*	40,200 *CFM*	35,323 *CFM*
Diversity	100 *%*	85 *%*	95 *%*	83 *%*
Total Average Flow	**42,435** *CFM*	**32,028** *CFM*	**37,286** *CFM*	**30,994** *CFM*
Total Design Flow	**42,435** *CFM*	**36,010** *CFM*	**40,200** *CFM*	**35,323** *CFM*

Supply System Flow Diversity

AHU 1

	CV	CV-UBC	VAV	VAV-UBC
Average Flow	41,345 *CFM*	30,938 *CFM*	36,196 *CFM*	29,904 *CFM*
Design Flow	41,345 *CFM*	34,920 *CFM*	39,110 *CFM*	34,233 *CFM*
Diversity	100 *%*	84 *%*	95 *%*	83 *%*
Total Average Flow	**41,345** *CFM*	**30,938** *CFM*	**36,196** *CFM*	**29,904** *CFM*
Total Design Flow	**41,345** *CFM*	**34,920** *CFM*	**39,110** *CFM*	**34,233** *CFM*

Central Plant System Flow Diversity

CP 1

	CV	CV-UBC	VAV	VAV-UBC
Average Flow	41,345 *CFM*	30,938 *CFM*	36,196 *CFM*	29,904 *CFM*
Design Flow	41,345 *CFM*	34,920 *CFM*	39,110 *CFM*	34,233 *CFM*
Diversity	100 *%*	84 *%*	95 *%*	83 *%*
Total Average Flow	**41,345** *CFM*	**30,938** *CFM*	**36,196** *CFM*	**29,904** *CFM*
Total Design Flow	**41,345** *CFM*	**34,920** *CFM*	**39,110** *CFM*	**34,233** *CFM*

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name	Hood Name	Hood Type	Daily User Presence Hours	Sash Width	Sash Height	Maximum Flow	Minimum Flow
008	Hood 37	5' VAV	1.00	52 *inches*	28 *inches*	1,000 *CFM*	325 *CFM*
008	Hood 38	5' VAV	1.00	52 *inches*	28 *inches*	1,000 *CFM*	325 *CFM*
107	Hood 43	5' VAV	1.00	52 *inches*	28 *inches*	600 *CFM*	325 *CFM*
107	Hood 44	5' VAV	1.00	52 *inches*	28 *inches*	600 *CFM*	325 *CFM*
107	Hood 45	5' VAV	1.00	52 *inches*	28 *inches*	600 *CFM*	325 *CFM*
107	Hood 46	5' VAV	1.00	52 *inches*	28 *inches*	600 *CFM*	325 *CFM*
107	Hood 47	5' VAV	1.00	52 *inches*	28 *inches*	600 *CFM*	325 *CFM*
107	Hood 48	5' VAV	1.00	52 *inches*	28 *inches*	600 *CFM*	325 *CFM*
107	Hood 49	5' VAV	1.00	52 *inches*	28 *inches*	600 *CFM*	325 *CFM*
107	Hood 50	5' VAV	1.00	52 *inches*	28 *inches*	600 *CFM*	325 *CFM*
109	Hood 31	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
109	Hood 32	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
109	Hood 33	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
109	Hood 34	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
109	Hood 35	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
109	Hood 36	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
109	Hood 40	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
109	Hood 41	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
109	Hood 42	5' VAV	1.00	52 *inches*	28 *inches*	625 *CFM*	325 *CFM*
202	Hood 22	4' VAV	1.00	41 *inches*	28 *inches*	750 *CFM*	150 *CFM*
203	Hood 21	8' Walk-in	1.00	88 *inches*	56 *inches*	1,500 *CFM*	1,500 *CFM*
206	Hood 1	5' VAV	1.00	52 *inches*	28 *inches*	550 *CFM*	325 *CFM*
206	Hood 2	5' VAV	1.00	52 *inches*	28 *inches*	550 *CFM*	325 *CFM*
206	Hood 3	5' VAV	1.00	52 *inches*	28 *inches*	550 *CFM*	325 *CFM*
206	Hood 4	5' VAV	1.00	52 *inches*	28 *inches*	550 *CFM*	325 *CFM*
206	Hood 5	6' VAV	1.00	64 *inches*	28 *inches*	715 *CFM*	635 *CFM*
207	Hood 06	5' VAV	1.00	52 *inches*	28 *inches*	580 *CFM*	325 *CFM*
207	Hood 07	5' VAV	1.00	52 *inches*	28 *inches*	580 *CFM*	325 *CFM*
207	Hood 08	5' VAV	1.00	52 *inches*	28 *inches*	580 *CFM*	325 *CFM*
207	Hood 09	5' VAV	1.00	52 *inches*	28 *inches*	580 *CFM*	325 *CFM*

Stanford Stauffer Hall - Retrofit

October 23, 2010

Room Name	Hood Name	Hood Type	Daily User Presence Hours	Sash Width	Sash Height	Maximum Flow	Minimum Flow
207	Hood 10	6' VAV	1.00	64 *inches*	28 *inches*	840 *CFM*	635 *CFM*
208	Hood 11	5' VAV	1.00	52 *inches*	28 *inches*	580 *CFM*	325 *CFM*
208	Hood 12	5' VAV	1.00	52 *inches*	28 *inches*	580 *CFM*	325 *CFM*
208	Hood 13	5' VAV	1.00	52 *inches*	28 *inches*	580 *CFM*	325 *CFM*
208	Hood 14	5' VAV	1.00	52 *inches*	28 *inches*	580 *CFM*	325 *CFM*
208	Hood 15	6' VAV	1.00	64 *inches*	28 *inches*	820 *CFM*	635 *CFM*
209	Hood 16	5' VAV	1.00	52 *inches*	28 *inches*	565 *CFM*	325 *CFM*
209	Hood 17	5' VAV	1.00	52 *inches*	28 *inches*	565 *CFM*	325 *CFM*
209	Hood 18	5' VAV	1.00	52 *inches*	28 *inches*	565 *CFM*	325 *CFM*
209	Hood 19	5' VAV	1.00	52 *inches*	28 *inches*	565 *CFM*	325 *CFM*
209	Hood 20	5' VAV	1.00	52 *inches*	28 *inches*	565 *CFM*	325 *CFM*
209	Hood 39	8' Walk-in	1.00	88 *inches*	56 *inches*	1,500 *CFM*	1,500 *CFM*

Project Defaults

Project Name Stanford Stauffer Hall
Project Description Retrofit
Company Name
Contact
Address
Phone

October 23, 2010

General

Occupied Hour	8:00:00 AM	
Unoccupied Hour	6:00:00 PM	
Exhaust System Design Percentile	99.00	%
Supply System Design Percentile	99.00	%
Central Plant Design Percentile	99.00	%
Weather Station	San Jose	

Room and Corridor

Corridor Floor Area	1,000.00	*Sq. Ft*
Corridor Heat Gain	2.00	*Watts/Sq. Ft*
Corridor ACH	4.00	
Room Ceiling Height	11.00	*Ft*
Room Floor Area	300	*Sq. Ft*
Room Temperature	74	*Deg F*
Room Heat Gain	10.00	*Watts/Sq. Ft*
Room ACH Occupied	6.00	
Room ACH Unoccupied	6.00	
VAV GEX Quantity	1	
VAV Supply Quantity	1	
Offset Percentage	10	%

Hood Usage

UBC Flow Normal Mode	100	%
UBC Flow Standby Mode	60	%
Sash Position with User Present	100	%
Sash Position with User Absent	50	%

Fan and Central Plant

Cooling Efficiency	1.10	*kW/Ton*
Heating Efficiency	80	%
Supply Air Temperature (Cooling)	55	*Deg F*
Supply Air Temperature (Heating)	55	*Deg F*
Supply AHU Static Pressure	5.00	*"w.c.*
Supply AHU Efficiency	65	%
Supply AHU Control Type	Variable Frequency Drive	
Exhaust Fan Static Pressure	5.00	*"w.c.*
Exhaust Fan Efficiency	65	%
Exhaust Fan Control Type	Variable Frequency Drive	

HVAC Inital Costs

Cooling System Cost	0.00	*USD*
Heating System Cost	0.00	*USD*
Reheat System Cost	0.00	*USD*
Duct Cost	0.00	*USD*
Supply AHU Cost	0.00	*USD*
Exhaust Fan Cost	0.00	*USD*
VFD Cost	0.00	*USD*
Filter Cost	0.00	*USD*
ATC Cost	0.00	*USD*
ATC Interface Cost	0.00	*USD*
VAV-UBC Controls Cost	1,100,000.00	*USD*
VAV-Phoenix Controls Cost	1,050,000.00	*USD*
VAV-Other Controls Cost	1,050,000.00	*USD*
CV-UBC Controls Cost	900,000.00	*USD*
CV-Phoenix Controls Cost	0.00	*USD*
CV-Other Controls Cost	0.00	*USD*

Operating Costs

Interest Rate	5	%
Hurdle Rate	3	%
Analysis Period	15	*Years*
Balancing Cost-Phoenix	100.00	*USD*
Balancing Cost-Other	250.00	*USD*
Certification Cost-Phoenix	25.00	*USD*
Certification Cost-Other	50.00	*USD*
Lab Downtime Cost	20.00	*USD*
CV Maint. Cost-Other	300.00	*USD*
VAV Maint. Cost-Other	750.00	*USD*
CV,CV-UBC Maint. Cost-Phoenix	0.00	*USD*
VAV,VAV-UBC Maint. Cost-Phoenix	0.00	*USD*
ATC Maintenance Cost per Room	500.00	*USD*

Energy Costs

Cooling Fuel Type	Electricity (kWh)	
Cooling Fuel Cost	0.100	*USD*
Cooling Fuel BTU's	3,413	
Heating Fuel Type	Natural Gas (therm)	
Heating Fuel Cost	0.800	*USD*
Heating Fuel BTU's	100,000	
Reheat Fuel Type	Natural Gas (therm)	
Reheat Fuel Cost	0.800	*USD*
Reheat Fuel BTU's	100,000	
Electricity Cost per kWh	0.100	*USD*

Stanford Stauffer Hall - Retrofit

October 23, 2010

City	San Jose
State	CA
Latitude	37 25N
Longitude	122 03W
Elevation	34
Altitude Corrrection Factor	1.00

Bin Min Temp *Deg F*	Bin Max Temp *Deg F*	MCWB *Deg F*	Midnight to 8 am	8 am to 4 pm	4 pm to Midnight	Total Hours Observed
105.0	109.0	71.0	0	0	0	0
100.0	104.0	70.0	0	0	0	0
95.0	99.0	69.0	0	0	0	0
90.0	94.0	67.0	0	6	0	6
85.0	89.0	66.0	0	21	3	24
80.0	84.0	65.0	0	70	14	84
75.0	79.0	63.0	0	158	49	207
70.0	74.0	62.0	12	370	153	535
65.0	69.0	59.0	76	616	384	1,076
60.0	64.0	56.0	454	624	676	1,754
55.0	59.0	53.0	771	519	685	1,975
50.0	54.0	48.0	668	333	544	1,545
45.0	49.0	44.0	493	144	297	934
40.0	44.0	40.0	310	46	95	451
35.0	39.0	35.0	112	9	17	138
30.0	34.0	31.0	22	1	1	24
25.0	29.0	26.0	1	0	0	1

Total Annual Hours Observed = 8,754

This data was obtained from the U.S. Government National Climactic Center. Differences from 8,760 annual hours are due to rounding.